Claims:

1. Use of macrophages for the preparation of a drug for the treatment of a disease or of a lesion involving cellular apoptosis, reduction of the survival of cells and/or destruction of cells.

2. Use of macrophages according to claim 1 for the preparation of a drug for the improvement of survival of a first type of cells, for the treatment of a disease or of a lesion involving the destruction of a second type of cells or of a tissue containing said second type of cells, said first type of cells being chosen among the group consisting of precursor cells and stem cells, said second type of cells being chosen among the group consisting of precursor cells, stem cells and any type of differentiated cells.

3. Use according to claim 1 or 2 wherein said first type of cells is to be grafted into a mammal for the treatment of one or several focal lesions.

4. Use according to any one of claims 1 to 3 wherein said first type of cells and / or macrophages are autologous for said mammal.

5. Use according to any one of claims 1 to 4 for the treatment of bone or of muscular lesion.

6. Use according to any one of claims 1 to 5 for the treatment of cardiac lesion, said cardiac lesion being possibly myocardial infarction, coronary thrombosis, dilated cardiomyopathy or cardiomyocyte dysfunction subsequent to, or resulting from, a genetic defect.

7. Use according to any one of claims 1 to 6 wherein macrophages act as a inhibitors of apoptosis of said first type of cells by cell to cell contact between the surface of respectively said macrophages and said first type of cells.

8. Use according to any one of claims 1 to 7 wherein macrophages act as a stromal support for said first type of cells.

9. Use according to any one of claims 1 to 8 wherein said first type of cells is chosen among a group consisting of: myogenic precursor cells, endothelial precursor cells, hematopoietic precursor cells, bone marrow precursor cells, mesenchymal precursor cells, neuronal precursor cells and multipotent adult stem cells.

10. Use of a composition containing macrophages and at least one first type of cells, in association with a pharmaceutically acceptable vehicle, for the preparation of a composition to be grafted into a mammal, said first type of cells being chosen among the group consisting of: precursor cells and stem cells.

11. Use according to claim 10 wherein said first type of cells are autologous to said mammal.

12. Use according to claim 10 or 11 for the treatment of a disease or of a lesion involving the destruction of cells.

13. Use according to any one of claims 10 to 12 for the treatment of one or several focal lesions.

14. Use according to any one of claims 10 to 11 for the treatment of bone or muscular lesion.

15. Use according to any one of claims 10 to 14 for the treatment of cardiac lesion, said cardiac lesion being possibly myocardial infarction, coronary thrombosis, dilated cardiomyopathy or cardiomyocyte dysfunction resulting from a genetic defect.

16. Use according to any one of claims 10 to 15 wherein said first type of cells are myogenic precursor cells.

17. Use according to any one of claims 10 to 16 wherein said composition contains from about 0.5 10^8 to about 7.5 10^8 macrophages and from about 0.5 10^8 to about 7.5 10^8 of said first type of cells.

18. Pharmaceutical composition containing at least one first type of cells, said first type of cells being possibly precursor cells or stem cells, and macrophages, in association with a pharmaceutically acceptable vehicle.

19. Pharmaceutical composition according to claim 18 wherein said first type of cells is chosen among a group consisting of: myogenic precursor cells, endothelial precursor cells, hematopoietic precursor cells, bone marrow precursor cells, mesenchymal precursor cells, neuronal precursor cells and multipotent adult stem cells.

20. Pharmaceutical composition according to claim 18 or 19 wherein the ratio between said first type of cells and macrophages, as expressed in number of cells, is comprised between about 1/10 and about 10/1, and is preferably of about 1/1.

21. Pharmaceutical composition according to any one of claim 18 to 20 wherein the percentage of macrophages, expressed in relation to the total number of cells in the composition, is from about 5 % to about 70 %, and more preferably from about 20 % to about 50 %, and more preferably of about 35 %.

22. Pharmaceutical composition according to anyone of claims 18 to 21 containing frozen precursors cells or stem cells on one hand and frozen macrophages on other hand, in pharmaceutically acceptable cryopreservant and vehicle.

23. Pharmaceutical composition according to any one of claims 18 to 21 containing macrophages and myogenic precursor cells.

24. Pharmaceutical composition according to claim 23 wherein the ratio between macrophages and myogenic precursor cells, as expressed in number of cells, is comprised between about 1/10 and about 10/1, and preferably of about 1/1.

25. Pharmaceutical composition according to claim 24 wherein the percentage of cells, expressed in relation of the total number of cells in the composition, is comprised from about 10 % to about 80 % of macrophages, more preferably about 50%, and from about 10 % to about 80 % of myogenic cell precursor cells, more preferably about 50%.

26. Pharmaceutical composition according to any one of claims 22 to 25 containing from about 0.5 10^8 to about 7.5 10^8 and preferably from about 1.5 10^8 to about 2.5 10^8 macrophages.

27. Pharmaceutical composition according to any one of claims 22 to 26 containing from about 0.5 10^8 to about 7.5 10^8 and preferably from about 1.5 10^8 to about 2.5 10^8 myogenic precursor cells.

28. Binary complex made of a myogenic precursor cell and a macrophage, interacting by cell to cell contacts between surface receptors on the surface of, respectively, macrophage and myogenic precursor cell.

29. Binary complex according to claim 27 wherein cell to cell contacts are mediated, at least partly, via cell surface molecules VLA4 and VCAM1, on the surface of myogenic precursor cell and macrophage.

30. Binary complex according to claim 27 or 28 wherein cell to cell contacts are mediated, at least partly, via cell surface molecules fractalkine (CX3CL1) and CX3CR1, on the surface of myogenic precursor cell and macrophage.

31. Process for preparing pharmaceutical compositions containing a first type of cells and macrophages, comprising contacting a first type of cells, chosen among the group consisting of precursor cells and stem cells, and macrophages.

32. Process according to claim 30 wherein said first type of cells and said macrophages are contacted for a time sufficient to allow at least one cycle of cellular division of said first type of cells

33. Product containing macrophages and a first type of cells, being possibly precursor cells or stem cells, as a combined preparation for the separate, simultaneous or sequential use in cellular graft into a mammal.

34. Product according to claim 32 wherein precursor cells are myogenic precursor cells.

35. Product according to anyone of claims 32 to 33 where aliquots of the first type of cells and the macrophages are kept frozen in acceptable vehicle until thawing for the injection.